

United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

FY 2006

WILDLIFE SERVICES—HAWAII

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USDA Resolves Wildlife Conflicts in Hawaii

Every day, Hawaii residents, industries, and agencies call on Wildlife Services (WS) for help in protecting agriculture, human health and safety, natural resources, and property from damage or threats posed by wildlife. WS' professional wildlife biologists respond with effective, selective, and humane strategies to resolve wildlife conflicts.

WS works to reduce wildlife damage to agriculture, native forests, endangered species, and game species, while educating the public about wildlife and wildlife damage management. Specific projects conducted by Hawaii WS include:

- Managing wildlife hazards to aviation at civil airports and military airfields
- Protecting corn seed research crops from bird depredation
- Controlling crop damage caused by feral pigs and deer
- Protecting endangered plants from rodents, feral sheep and goats
- Protecting endangered birds and native seabird nesting colonies from predation
- Conducting sampling and monitoring for West Nile virus and avian influenza
- Conducting control of invasive species, such as frogs and parrot species

Top 5 Major Assistance Activities:

- Protecting civil and military aircraft from collisions with wildlife
- Managing damage on seed research crops caused by introduced game birds
- Protecting endangered plants and native ecosystems from damage from introduced feral goats, sheep, pigs and cattle
- Reducing predation on endangered Hawaiian water bird populations and native seabird colonies
- Developing strategies and methods for the control of invasive species such as the Caribbean tree frogs and brown tree snake



Applying Science & Expertise to Wildlife Challenges

WS offers advice, equipment, and materials that enable many people to resolve wildlife conflicts on their own. Often, this technical assistance can be provided over the phone. WS also provides on-site expertise, or direct assistance, to manage complex problems that cannot be safely resolved by others. To support this effort, WS conducts scientific research across the Nation to develop solutions to new problems posed by wildlife and to ensure the program benefits from the latest science and technology.

Protecting Air Travelers—From 1990 to 2005, Hawaii's airports ranked 14th in the U.S. for the total reported wildlife. Airfield managers rely on WS' expertise to manage wildlife problems at all major State airports. WS also provides wildlife hazard management at several privately-owned commercial airports and military airfields on six islands. WS successfully reduced wildlife strikes at airfields where it conducts daily control operations. In addition to direct assistance, WS conducted wildlife hazard assessments (ecological studies) at all the major airports in Hawaii to identify and develop plans to reduce hazards to aviation. WS maintains a wildlife strike database and reports all collisions with civil and commercial aircraft occurring in Hawaii to the Federal Aviation Administration.

Protecting Corn Seed Research Crops—Research on corn has become important in Hawaiian

agriculture since the end of major sugarcane production; the tropical climate allows seed companies and researchers to continue studies all year. WS assisted corn seed researchers in protecting seedlings from depredation caused by birds such as gray and black francolins. Farm managers rely on WS expertise in reducing bird depredation where public hunting is not feasible.

Protecting Threatened and Endangered

Species—Many unique Pacific Island plants and animals are threatened with extinction. Hawaii has the highest number of endangered species in the Nation. WS protects endangered waterbirds at State sanctuaries and wetland sites on military lands from introduced predators such as the small Indian mongoose. Where feral goats, sheep, pigs, and deer impact endangered plants and public hunting is not feasible, WS works closely with State, Federal and private organizations to remove animals that are causing damage.

Protecting Seabird Nesting Colonies—Seabirds within the Hawaiian archipelago are vital to a well-balanced marine ecosystem. Fisheries depend heavily on these birds to locate schooling fish. Urban expansion on the major islands decreased suitable nesting habitat, segmented from historic ranges. Most seabird nesting occurs on islets off major island coasts, mainly due to lack of predators and human activity, on small parcels managed by other Federal and State agencies. WS assists with wildlife damage management projects involving the removal of avian and mammalian predators from natural area reserves and seabird

sanctuaries. The resounding success can be observed by the annual increase in nesting colonial seabirds and fledgling success rates.

West Nile Virus Disease Monitoring—Hawaii is one of the few states free of West Nile virus (WNV). Sometimes fatal to humans, the disease poses a significant threat to wild and domestic bird populations, especially endangered species unique to Hawaii. It can also impact the local poultry industry. Currently WS cooperates with the State of Hawaii's Department of Health and a federal agency by providing live-captured birds (from the airport protection programs) for blood extraction and screening as part of WNV surveillance. To date, no WNV positive tests have occurred.

Avian Influenza (H5N1) Surveillance—Pacific Islands could facilitate movement of Asian highly pathogenic avian influenza, (HPAI H5N1) from Asia to North America. Air and sea transportation links the islands to the U.S. mainland, so any appearance of HPAI H5N1 in the islands increases its probability of reaching North America. Migratory birds from Asia winter on many Pacific Islands and closely associate with local wildlife and people. Thus, surveillance for HPAI H5N1 in Hawaii and other Pacific islands is a national priority. Hawaii WS, in coordination with the Hawaii Department of Land and Natural Resources, the Government of Guam, and other agencies joined the broad-scale avian influenza sampling program to detect the potential presence of AI in migratory birds in the main Hawaiian Islands, Guam, the Commonwealth of the Northern Mariana Islands, and Kwajalein, one of the Marshall Islands.

Coqui Frog Control, Hawaii Island—During 2006, WS focused on providing technical

and operational assistance to Hawaii Island communities involved in Coqui-control efforts. This community action support, funded by two County of Hawaii grants, became part of an established Loan Sprayer Program., which employed four full-time employees and purchased 20 sprayers on trailers. The Hawaii Island Economic Development Board also purchased eight sprayers. With 100- to 400-gallon capacities, these were transferred to Wildlife Services and added to the Loan Sprayer program. WS assisted through weekly citric acid spray operations, effectively reducing incipient Coqui populations around the island. Biologists from the National Wildlife Research Center (NWRC) conducted pre-spray and follow-up site surveys to determine the effectiveness of all spray operations. In addition, WS received Congressional funding used to implement a nursery spray program on Hawaii Island: WS and State Department of Agriculture selected nurseries in need of assistance, sanitizing the nurseries through spraying and habitat modification.

Looking to the Future

WS continues a strong cooperative program by improving its services to state airports. A WS airport operations manual specifically for Hawaii is being developed by local staff biologists and field supervisors to standardize data collection, reports, and operational procedures to provide better coordination and continuity between WS airport operations within the state. Wildlife Hazard Assessments (ecological studies) have been completed for all major airports in Hawaii, and reports are being finalized with recommendations to the airports to improve wildlife threat reduction plans.

In FY06 WS in Hawaii produced, and is about to release, a statewide Environmental Assessment for WS activities at all major civilian airports throughout the state. WS will continue to update all National Environmental Policy Act environmental analyses of program actions for all non-Federal cooperators. As required by WS national

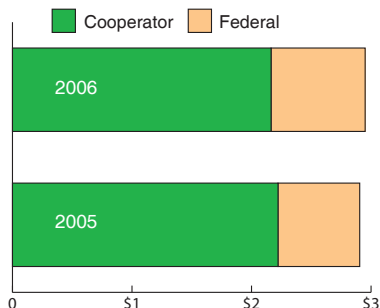
policy the public involvement into these analyses will be above that required by NEPA.

WS' program to prevent brown tree snakes from arriving in Hawaii and spreading throughout the Pacific Basin via military and civilian transportation networks is threatened by funding restrictions of its major cooperators. Interdiction work on Guam is critical and some major cargo sectors will not be inspected for brown tree snakes unless more secure funding is provided. WS may need to locate new facilities to house canines used for snake interdiction due to space limitations on military bases on Guam. This need to find non-military facilities will place an added financial burden on the program.

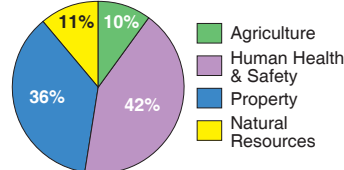
Hawaii Wildlife Services Funding

In addition to receiving federally allocated funds, WS also receives money from cooperators who have a vested interest in the program: producers, private individuals, businesses, and other Federal, State, and local government agencies. In most cases, these cooperators need help to resolve wildlife damage problems or they play an active role in wildlife damage management.

Total Funding (Millions)



Resources Protected % of Total Funds



Top 4 WS Research Projects of Interest to Hawaii:

- Improving rat damage management methods in macadamia orchards
- Developing control methods for invasive species such as brown tree snakes and Coqui frog
- Identifying the best bait or attractant to use in traps used to control the introduced small Indian mongoose and the feral cat
- Developing a repellent to protect corn seedlings from game bird depredation

Major Cooperators

- U.S. Department of Defense
- U.S. Fish and Wildlife Service
- State of Hawaii, Departments of Agriculture, of Transportation, Airports, Division and of Land and Natural Resources
- County of Hawaii
- Two major seed companies
- One major land owner

NWRC Research Station in Hawaii

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The field station emphasizes research to reduce rodent depredation agricultural crops and effective methods to control rat damage.

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